



FEDERAL SECURITY AGENCY
PUBLIC HEALTH SERVICE

IN REPLYING, ADDRESS THE

November 13, 1952

Communicable Disease Center
Enteric Bacteriology Laboratories
P. O. Box 183
Chamblee, Georgia

Dr. Joshua Lederberg
The University of Wisconsin
College of Agriculture
Madison 6, Wisconsin

Dear Dr. Lederberg:

Thank you very much for your letter of November 6. I am anxious to talk with you about the review which Perry Wilson has proposed. I do not look forward to writing it with any degree of confidence. Years ago I promised Barnett Cohen I would write one for him and I never did. It remains to be seen whether the one now proposed will get written.

I do not have before me the results of the examination of your cultures. Therefore, what I say of them is from memory. To set you at ease, it should be said that both of the forms which originated from *S. typhi* murium are diphasic. One of them is IV,V,XII: b-1,2. The other is IV,V,XII: g,p-1,2. Both of these cultures are atypical in that they fail to utilize Simmons' citrate. Therefore, we would like to have the parent culture of *S. typhi* murium in order to test its biochemical properties.

676 Many of the cultures which originated from the *S. paratyphi* B
675 culture were IV,V,XII: z₃₃. Phase z₃₃ is a variant which is easily
678 forced from monophasic b cultures by growth in homologous serum. The
phase occurs in nature in variant cultures of *S. minnesota*. We have
had 13 such cultures over a period of years. In large part, it can
be said that the cultures which originated from *S. paratyphi* B and
S. typhi were as you surmised. In one instance, the identities of
two of the cultures were reversed. — 680 and 681 - Rechecked from your original
tubes.

Before sending you the results we wish to phage type the cultures of *S. paratyphi* B. We thought it would be interesting to see whether their reactions to the typing phages had been changed due to your manipulations. Therefore, we would like to have the original nonmotile culture of *S. paratyphi* B from which the variants arose.
are

Since the above is being dictated at my home, there/a number of your questions which I cannot answer. These will be answered when we finally report upon your cultures.

For the Officer-in-Charge, Bacteriology Section

PRE:mg

P.S. on attached sheet

Sincerely yours,

P. R. Edwards

Philip R. Edwards, Ph. D.
Bacteriologist I/C, Enteric Bacteriology Unit

Dr. J. Lederberg

November 13, 1952

P. S.

I believe that some of the variants which arose from S. typhi gave delayed positive reactions in Simmons' citrate. Was S. typhi 901 used in these experiments? That strain sometimes gives late positives on citrate. If these did not arise from 901, would you send the original culture to us for examination?